WD AV
Hard Drives

Reliable
Cool and Quiet
Compatible

Designed for demanding audio and video environments.

- **Long-Term Reliability** – With a MTBF of 1 million hours, these drives are designed to last in high temperature always-on streaming digital audio/video environments such as PVR/DVR, DVR recorders, and surveillance video recorders.

- **Quiet** – Noise levels have been minimized to less than one sone* – virtually below the threshold of human hearing.

- **Low Power, Cool Running** – WD AV drives deliver best-in-class low power consumption for reduced system power requirements and increased reliability.

- **Compatible** – Tested for compatibility in a broad range of AV products including set top boxes, DVD recorders, and mainstream surveillance systems.

Technology Features

SilkStream™ – Optimized for smooth, continuous digital video playback of up to twelve simultaneous HD streams.** SilkStream is compatible with the ATA streaming command set allowing CE customers to use standard streaming management and error recovery options.

IntelliSeek™ – Optimizes seek speeds to lower power consumption, noise and vibration.

Ramp Load – Parks the recording heads off the disk surface during spin up, spin down, and when the drive is off. This ensures the recording head never touches the disk surface resulting in improved long term reliability due to less head wear, and improved non-operational shock tolerance.

Preemptive Wear Leveling (PWL) – The drive arm frequently sweeps across the disk to reduce uneven wear on the drive surface common to audio video streaming applications.

WD AV SATA and **EIDE drives** are ideal for PVR/DVR, DVD recorders, surveillance video recorders, and other video streaming applications.
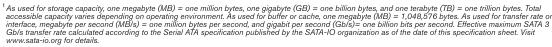
*A sone is a subjective unit of loudness as perceived by a person with normal hearing.
**Assumes Host Transfer Block size of 2 MB per stream.

WD Western Digital®

P U T   Y O U R   L I F E   O N   I T ®

WD AV Hard Drives

Specifications[1]	500 GB	320 GB	250 GB	160 GB
SATA model numbers		WD3200AVJS	WD2500AVJS	WD1600AVBS WD1600AVJS
EIDE model numbers	WD5000AVJB	WD3200AVJB	WD2500AVJB	WD1600AVJB
Formatted capacity	500,107 MB	320,072 MB	251,059 MB	160,041 MB
User sectors per drive	976,773,168	625,142,448	490,350,672	312,581,808
Native command queuing	Yes	Yes	Yes	Yes
SATA latching connector[2]	Yes	Yes	Yes	Yes
Actuator latch/auto park	Yes	Yes	Yes	Yes
Form factor	3.5-inch	3.5-inch	3.5-inch	3.5-inch
RoHS compliant[3]	Yes	Yes	Yes	Yes
Performance				
Data transfer rate (max) Buffer to host (SATA) Buffer to host (EIDE)[4] Host to/from drive (sustained)	100 MB/s 126 MB/s	SATA 3 Gb/s 100 MB/s 121.5 MB/s	SATA 3 Gb/s 100 MB/s 121.5 MB/s	SATA 3 Gb/s 100 MB/s 121.5 MB/s
Cache (MB)	8	8	8	8 (AVJS/AVJB) 2 (AVBS/AVBB)
Average latency (ms)	4.2	4.2	4.2	4.2
Rotational speed (RPM)	7200	7200	7200	7200
Average drive ready time (sec)	11	11	11	6.5
Reliability/Data Integrity				
Load/unload cycles[5]	50,000	50,000	50,000	50,000
Non-recoverable read errors per bits read	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}	<1 in 10^{15}
Limited warranty (years)[6]	3	3	3	3
Power Management				
12VDC (A, max)	1.375	1.450	1.450	1.525
Average power requirements (W) Read/Write Idle Standby Sleep	8.3 7.7 1.0 1.0	8.4 7.7 0.9 0.9	8.4 7.7 0.9 0.9	6.61 6.24 0.97 0.97
Environmental Specifications[7]				
Temperature (°C) Base casting (max) Operating Non-operating	70 0 to 60 -40 to 70	70 0 to 60 -40 to 65	70 0 to 60 -40 to 65	70 0 to 60 -40 to 65
Shock (Gs) Operating (2 ms, read) Operating (2 ms, read/write) Non-operating (2 ms)	30 65 300	30 65 300	30 65 300	30 65 350
Average acoustics (dBA)[8] Idle mode Quiet seek mode	25 26	25 26	25 26	24 25
Physical Dimensions				
Height (in./mm, max)	1.028/26.1	1.028/26.1	1.028/26.1	1.028/26.1
Length (in./mm, max)	5.787/147	5.787/147	5.787/147	5.787/147
Width (in./mm, ± .01 in.)	4/101.6	4/101.6	4/101.6	4/101.6
Weight (lb./kg, ± 10%)	1.39/0.63	1.39/0.63	1.39/0.63	1.07/0.485

[1] As used for storage capacity, one megabyte (MB) = one million bytes, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. As used for buffer or cache, one megabyte (MB) = 1,048,576 bytes. As used for transfer rate or interface, megabyte per second (MB/s) = one million bytes per second, and gigabit per second (Gb/s)= one billion bits per second. Effective maximum SATA 3 Gb/s transfer rate calculated according to the Serial ATA specification published by the SATA-IO organization as of the date of this specification sheet. Visit www.sata-io.org for details.

[2] SATA models only.

[3] WD products manufactured and sold worldwide after August 1, 2005, meet or exceed Restriction of Hazardous Substances (RoHS) compliance requirements as mandated by the European Union for electrical and electronic products. The RoHS Directive 2002/95/EC of the European Parliament, which is effective in the EU beginning July 1, 2006, aims to protect human health and the environment by restricting the use of certain hazardous substances in new equipment, and consists of restrictions on lead, mercury, cadmium, and other substances.

[4] Maximum burst rate running the specified PIO, DMA, or Ultra ATA transfer.

[5] Controlled unload at ambient condition.

[6] The term of the limited warranty may vary by region. Visit support.wdc.com/warranty for details.

[7] No non-recoverable errors during operating test or after non-operating tests.

[8] Sound power level.

Works with Windows Vista®

SERIAL ATA 3 Gb/s

EIDE

RoHS COMPLIANT

Western Digital®